

Work Order ID: 77056

November-25-11 8:33:02 AM

\*77056\*

U/R

Page 1

Item ID: D3564-11

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Item Name: Wearshoe

Stop \*NS2\*

Start Date: 25/11/2011 Start Qty: 16.00

\*16\*

Cust Item ID:

Required Date: 09/12/2011 Req'd Qty: 16.00

\*16\*

Customer:

Reference:

Approvals:

Process Plan: M.L.J.

Date: 11/11/25 Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3564

Rev D U/R

OK 11.11.25

100

0.00

\*100\*

FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3564 \*\*\*\*\* (D3564-1F) \*\*\*\*\* Dwg Rev: D4R Prog  
Rev: D4R 2-Deburr if necessary

B11-12-1

(17)

110

QC2- Inspect parts off machine FAI/FAIB

0.00

\*110\*

QC

Memo

0.00

Quality Control

B11-12-1

120

QC8- Inspect parts - second check

0.00

\*120\*

QC

Memo

0.00

Quality Control

11

11.12.02

(17)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr.	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 77056

**\*77056\***

Page 2

November-25-11 8:33:02 AM

Item ID: D3564-11 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Wearshoe  
 Start Date: 25/11/2011 Start Qty: 16.00 **\*16\*** Cust Item ID:  
 Required Date: 09/12/2011 Req'd Qty: 16.00 **\*16\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 <b>*130*</b> Brake NC Brake NC	NC BRAKE  Memo Deburr if necessary Form on Brake as per Dwg D3564 using Jigs DT8179	0.00  0.00				(17)			
140 <b>*140*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00				(47)			
150 <b>*150*</b> Large Fab Large Fab	Large Fab  Memo Qty Description Batch A/R 2059B Hardcoat 120645 Weld hardcoat as per Dwg D3437	0.00  0.00				(17)			ME/MAL 2012-02-

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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# Work Order ID 77056

November-25-11 8:33:02 AM

**\*77056\***

Page 3

Item ID: D3564-11 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Wearshoe  
 Start Date: 25/11/2011 Start Qty: 16.00 **\*16\*** Cust Item ID:  
 Required Date: 09/12/2011 Req'd Qty: 16.00 **\*16\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 <b>*160*</b> QC Quality Control	QC10- Inspect visual per QSI004- ground welds  Memo	0.00  0.00	<i>Pl 12.02.22</i>						
170 <b>*170*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00	<i>W 12.02.22 (17)</i>						
180 <b>*180*</b> Powdercoat Powder Coating	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3  Memo START TIME: <i>10:00</i> FINISH TIME: <i>32:00</i>	0.00  0.00	<i>170 M/L 12/02/27</i>						

*MIL8484*

*32:00*

*10:30*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**\*77056\***

Page 4

November-25-11 8:33:02 AM

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 Item Name: Wearshoe  
 Start Date: 25/11/2011 Start Qty: 16.00 **\*16\*** Cust Item ID:  
 Required Date: 09/12/2011 Req'd Qty: 16.00 **\*16\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 <b>*190*</b> QC Quality Control	QC3- Inspect Part Finish  Memo	0.00  0.00							17 <del>XC</del> MU 12/02/27 COU107edam CASUNCb
200 <b>*200*</b> Packaging Packaging	Identify as per dwg & Stock Location: <u>FP1</u>  Memo	0.00  0.00							17X <del>Y</del> M <del>1</del> 12/02/27
210 <b>*210*</b> QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00  0.00							MCS 12/02/28

12/02/27  
(17)

W/O:		WORK ORDER CHANGES					
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**NOTE:** Date & initial all entries



# Picklist Print

November-25-11 8:33:06 AM

Page 1

Work Order ID: 77056

\*77056\*

Parent Item: D3564-11

\*D3564-11\*

Parent Item Name: Wearshoe

Start Date: 25/11/2011

Required Date: 09/12/2011

Start Qty: 16.00

Required Qty: 16.00

Comments: IPP Rev:A New Issue 07-03-08 ec  
 IPP Rev:B As per Rev C 07-07-09 JLM  
 IPP Rev:C As per Rev D 07-09-09 JLM Verified By:EC  
 IPP Rev:D Comments revised on Step 5, 6 per B44656 09-02-06 KJ  
 Verified By:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S16GA		Purchased	No			100	sf	303.6000	1.41	23.74737			

\*M304S16GA\*

\*\*

181-12-1

304/316 Sheet .063

Location

Loc Qty

Loc Code

MAT020

303.6

119346

26.6

119653

277

119346

(17)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

DS- MIC D

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 77054
<b>Description:</b> Wearshoe		<b>Part Number:</b> D3564-11
<b>Inspection Dwg:</b> D3564	<b>Rev:</b> D	<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.227	+/-0.010	3.224	X		V B62	
2.432	+/-0.010	2.440	X		V	
2.50	+/-0.030	2.6	X		V	
6.000	+/-0.010	6.00	X		V	
12.104	+/-0.010	12.104	X		T B61	
18.000	+/-0.010	18.000	X		T	
18.00	+/-0.030	18.00	X		T	
9.00	+/-0.030	9.00	X		T	
11.50	+/-0.030	11.50	X		T	
0.300 x 0.300	+/-0.010	300 x 301	X		V	
Ø0.188	+0.005/-0.001	189	X		V	
R0.375	+/-0.010	375	X		R G.	
0.063	+/-0.010	1000	X		V	

<b>Measured by:</b> RB
<b>Date:</b> 11-12-1

<b>Audited by:</b> W/W
<b>Date:</b> 11.12.02

<b>Prototype Approval:</b>	N/A
<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	07.09.06	New Issue	KJ/JLM	
B	07.11.23	Dwg Rev updated	KJ/EC/DD	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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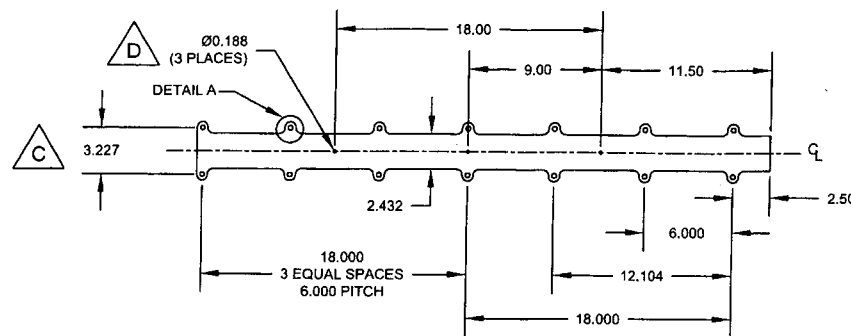
SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 77056 M.L.J

RELEASED

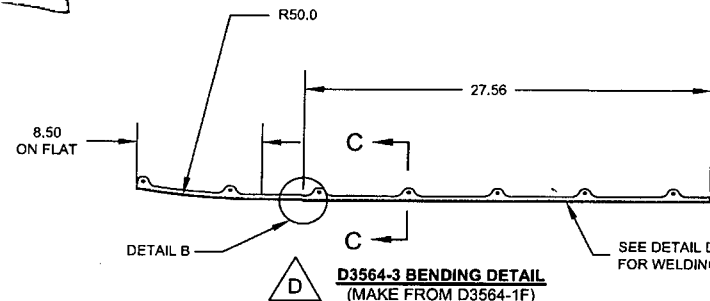
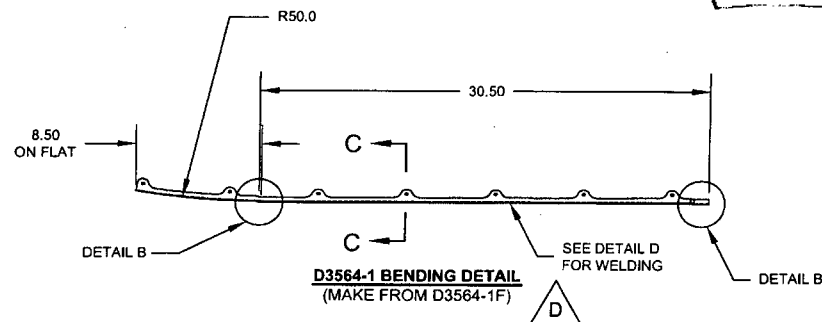
07.09.04

UNDER REVIEW

Final change



D3564-1F FLAT PATTERN



**D3564-11/-3/-5/-7/-9/-11/-13/-15 WEARPLATE NOTES:**

- 1) MATERIAL: AISI 304/316 SS SHEET PER AMS 5513 OR AMS 5524, 16 GAUGE (0.063 THICK)  
(REF DART MATERIAL SPEC M304S16GA)
- 2) FINISH: POWDER COAT GREY SANDTEX (REF 4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: SEE TABLE IN ZONE A3
- 8) WELD PER DART QSI 004
- 9) SEE PG 3 FOR SECTIONS AND DETAILS
- 10) PARTS ARE SYMMETRIC ABOUT C

WEIGHTS:	
D3564-1	1.85 lbs
D3564-3	1.85 lbs
D3564-5	1.93 lbs
D3564-7	1.26 lbs
D3564-9	1.85 lbs
D3564-11	1.85 lbs
D3564-13	0.38 lbs
D3564-15	0.80 lbs

D	UPDATE DRAWING TEMPLATE; CHANGE ALL (TYP X PLS) TO (X PLACES); PG1 A8: UPDATE NOTES; PG1 A8, PG3 B5,C5: ADD D3564-15; PG1 B6,B3: D3564-11/-3 WAS ONE FIGURE; PG2 A7,A3: D3564-9/-11 WAS ONE FIGURE; PG2 A7,A3: D3564-9/-11 WAS ON PG1; PG3 B8,C8: D3564-13 WAS ON PG2; PG3 D2: WELDING DETAIL WAS ON PG1 PG3 A5,7,B2: RELOCATE DETAILS AND SECTION; PG3 A5,7,B2: INCREASE DETAIL AND SECTION SIZE		CB	07.08.21
	C MOVE TAB OUTBOARD, DETAIL A		PH	07.04.17
	B ADD AMS 5513 AND AMS 5524		PH	07.03.20
	A NEW ISSUE		PH	06.12.18
REV.		DESCRIPTION		DATE
DESIGN	PH	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA		
DRAWN	CB			
CHECKED	PH	DRAWING NO. REV. D		
MFG. APPR.	PH	D3564 SHEET 1 OF 3		
APPROVED	PH	TITLE SCALE		
DE APPR.	PH	WEARSHOE 1:8		
DATE		07.08.21		

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

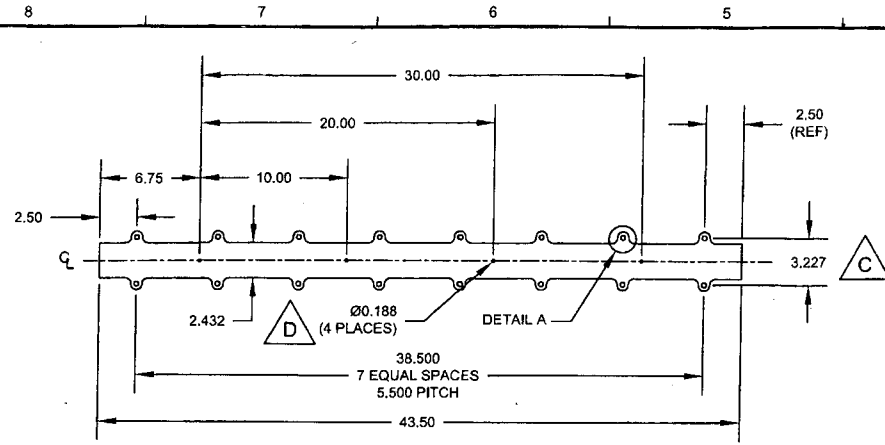
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

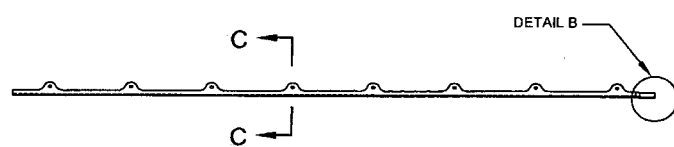
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

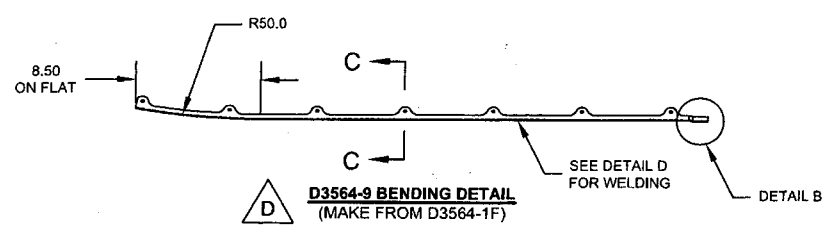
77056



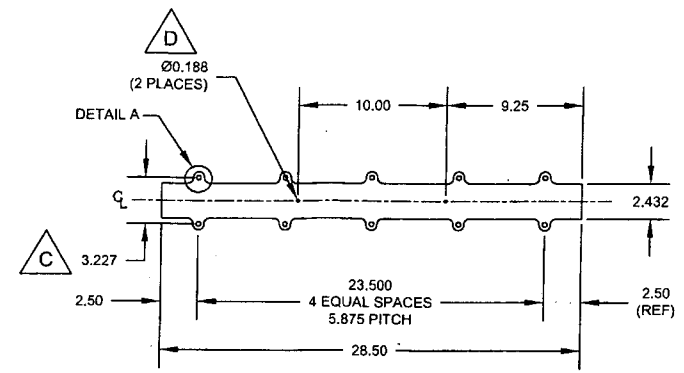
**D3564-5F FLAT PATTERN**



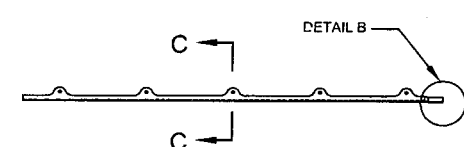
**D3564-5 BENDING DETAIL**  
(MAKE D3564-5 FROM D3564-5F)



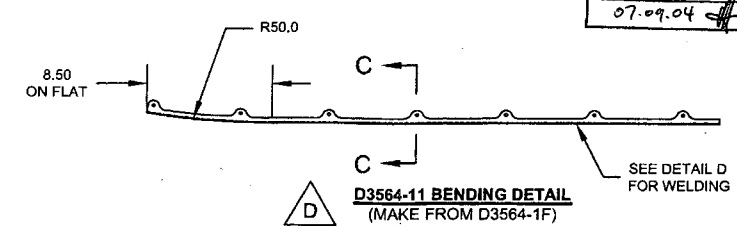
**D3564-9 BENDING DETAIL**  
(MAKE FROM D3564-1F)



**D3564-7F FLAT PATTERN**



**D3564-7 BENDING DETAIL**  
(MAKE D3564-7 FROM D3564-7F)



**D3564-11 BENDING DETAIL**  
(MAKE FROM D3564-1F)

UNDER REVIEW

RELEASED  
07.09.04

DESIGN	PH	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	CB		
CHECKED	PH	DRAWING NO.	REV. D
MFG. APPR.	PH	D3564	SHEET 2 OF 3
APPROVED	PH	TITLE	SCALE
DE APPR.	PH	WEARSHOE	1:8
DATE	07.08.21	COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

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Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

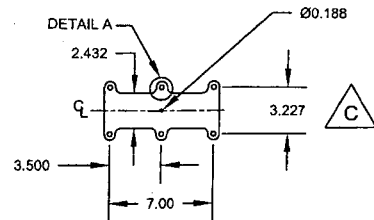
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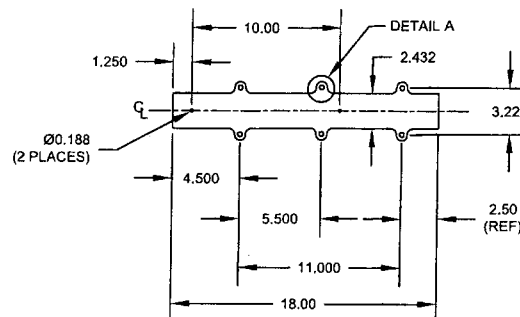


77056

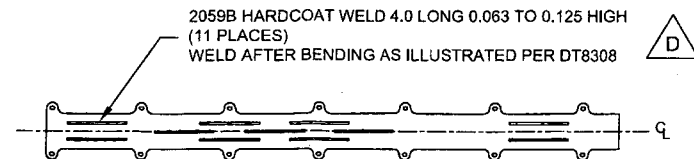
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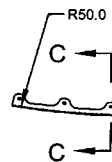
**D3564-13F FLAT PATTERN**



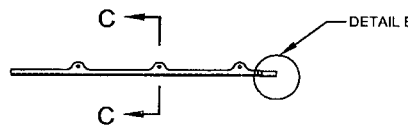
**D3564-15F FLAT PATTERN**



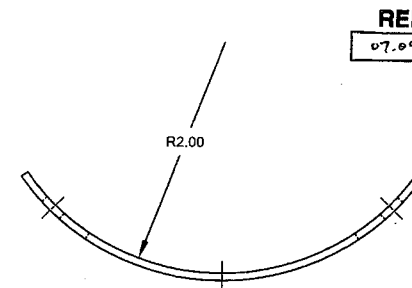
**DETAIL D**  
(D3564-1/-3/-9/-11 WELDING DETAIL)



**D3564-13 BENDING DETAIL**  
(MAKE D3564-13 FROM D3564-13F)



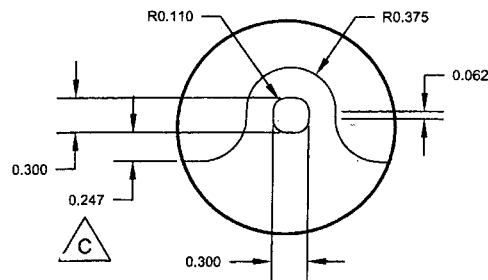
**D3564-15 BENDING DETAIL**  
(MAKE D3564-15 FROM D3564-15F)



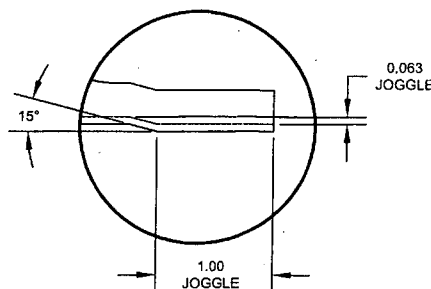
**SECTION C-C**  
SCALE 1:1

**RELEASED**  
07.07.04

**UNDER REVIEW**  
11/14/14



**DETAIL A**  
SCALE 1:1



**DETAIL B**  
SCALE 1:1

DESIGN	PH	<b>DART AEROSPACE LTD</b>	
DRAWN	CB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO.	REV. D
MFG. APPR.	PH	D3564	SHEET 3 OF 3
APPROVED	PH	TITLE	SCALE
DE APPR.	PH	WEARSHOE	1:8
DATE	07.08.21	<small>COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

8 7 6 5 4 3 2 1

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